

BMP-06

18th St. and Ave. A Weir Improvements

City of Watervliet

Project Description:

Optimization project that includes modification of the existing regulator structure, increasing the size of the connection pipe.

Purpose:

Eliminates operational challenges within the regulator and increases capacity of regulator to convey more combined sewage to the interceptor, thus reducing the frequency and volume of CSOs.



Consent Order Milestones	Date Milestone Met
Completed Plans & Specifications: 10/1/16	9/30/2016
NTP to Construction: 4/1/17	3/29/2017
Construction Completion Date: 12/15/17	11/10/17
Operational Start-Up Date: 12/15/17	11/10/17

SPEDES Permit #	NY-003-0899
LTCP Projected Project Cost	\$40,000
Total Construction Cost (minus in-kind and grant)	\$18,051
Owned By	City of Watervliet
CSO Outfall	W-005
Grant Funding or other sources	DEC WQIP (85%)
Annual Volume Captured (Mgal)	(Together with Improvements at Five Regulators) 4.7MG
Annual Percent CSO Reduction (%) (Pool-Wide)	(Together with Improvements at Five Regulators) .38%

Contact Information:

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Project Status:

10/08/15: ACSD has applied for WQIP funds to complete this project, BMP-09, BMP-06, and BMP-07.

1/14/16: ACSD was awarded a WQIP grant to help defray the costs of this project. CDRPC will be working with the communities, District, and DEC to develop a work plan and to advance the project. **(continued next page)**

4/14/16: Watervliet, Cohoes, and Green Island have begun working with the APJVT to develop a more detailed scope of the projects to create budget lines, determine roles and responsibilities for individual projects, and complete requirements to execute the grant contract with the Department.

7/14/16: The District and communities have been working and meeting with representatives of the APJVT, scoping the projects and developing a list of optimization projects and budget. The communities will be advancing some of the optimizations in house, some work will require contractors. The final states of budgeting and executing the engineering agreement are underway.

10/16/16: Plans and specs submitted to DEC on 9/28/16. The first attempt with a camera contractor to video sewer line from either direction was made on 9/29/16. Could not camera the pipe due to amount of gravel and flow. The technical team discussed the potential need to modify the project at the quarterly meeting with DEC on October 13, 2016.

3/1/16: The Department approved the Plans and Specs, collectively for BMP-05-BMP-08 on October 27, 2016. During the winter, the City of Watervliet has made several attempt to employ a sewer jet truck to investigate the downstream intercepting sewer that the regulator discharges to that appears to have debris that is restricting are wet weather flow. Cold weather and flow volume in the interceptor has prevented the City from jetting the line to send in a camera to do adequate inspection of the condition of the pipe. The debris is too large to be jetted by standard jet equipment. At this time it is not possible to determine if the debris is related to a pipe collapse or not, and this hampers efforts to develop a remedy.

The following is a timeline and results of attempts made by the City to jet and inspect the connection pipe at 18th and Ave. A.

- **9/29/16:** First attempt with a camera contractor to video sewer line from either direction. Could not camera the pipe due to amount of gravel and flow.
- **11/10/16:** Collaborated with ACSD to use their vacuum truck to clean as much gravel as possible. Made 2 passes with a large power head and vacuum truck broke down.
- **11/14/16:** ACSD came back and made several passes with the jet, cleaning out the gravel.
- **11/16/16:** Had camera contractor come back to video the line. Still could not get through due to debris and flow. **(continued next page)**

- **1/11/17:** Contractor came back with vacuum truck and specialized large gravel puller nozzle to scour the pipe clean. Low temperatures caused the jet nozzle to freeze. Contractor advised waiting until warmer weather with low flow.
- Weather from mid-Jan to mid-Feb was not conducive to reattempt jetting.

The Watervliet City Council met on February 17, 2017 to review the bid documents for Ave A and 18th St. Work. The Council took no action. Part of the concern was that a change order of unknown scope would have eventually been needed between bid and

needed between bid and construction start and without a clear picture of remedy there was some cause for concern about bidding out a project that would ultimately be modified. At this point the Pool became certain that the NTP date of 4/1/16 would no longer be possible. A modification request letter for the NTP date detailing this request for a modification will be submitted to the Department.

4/13/17: After successful completion of jetting and cleaning the city-owned interceptor, and removing debris in early March, the investigation revealed that the interceptor sewer was not structurally comprised as originally suspected. Debris partially blocking the interceptor was cleaned and removed. The engineering team reviewed the scope of the project and determined that if the scope were slightly modified, to remove the existing orifice, leave the overflow weir at its current elevation (27.5 feet), and retain the 10-inch sewer, the resulting flow to the intercepting sewer would not be limited to the capacity of the orifice and could be as high as 2.5 mgd during wet weather; substantially greater than the LTCP's original proposal of modifying the weir and upsizing the 10" connector pipe. The replacement of the 10-inch sewer would have yielded only a marginal return in system optimization due to the slope and capacity of the 18-inch interceptor sewer. The City has indicated that they are willing to self-perform this work beginning April 1 – without any modification to the project's completion date modification date in the Order. A technical memo describing the progress of the project and the genesis of its alternative design was submitted to the department on March 28. The Pool received the Department's letter on April 10th and is developing a reply to the Department's requests within the project scope modification response letter.

7/13/17: The Department conditionally approved the project scope modification schedule as proposed by the technical team, provided several tasks were completed within a schedule specified in the modification request letter. Pipe inspection has been completed and video footage will be reviewed, results conveyed in a report on the conditions of the upstream system. Work on the 25th street bypass is slated to begin shortly.

9/15/17: The City plugged the 25th St. overflow and submitted photo documentation to the Department on July 27, 2017. The City also completed jetting and inspection of the sewer pipes tributary to 18th and Avenue A and found the pipes to be in good condition. This report was submitted to NYSDEC on 8/30. Retrofit of the 18th St. Regulator is slated to be undertaken by City of Troy Force Account work. **(continued next page)**

1/11/18: On November 10, the City of Watervliet completed the removal of the regulator orifice at 18th Street and Ave. A. This work represents the Pool Communities' Construction Completion and Operational Start-Up for this project.

This project is complete.